GenCore version 5.1.5


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OM nucleic - nucleic search, using sw model

Run on:         May 15, 2003, 02:22:59 ; Search time 9025 Seconds
                                         (without alignments)
                                         11689.493 Million cell updates/sec

Title:          US-09-804-472-1
Perfect score:  3625
Sequence:       1 gaacccagttgcttcagcga..........aaaaaaaaaaaaaaaaaaa 3625

Scoring table:  IDENTITY_NUC
                Gapop 10.0 , Gapext 1.0

Searched:       2054640 seqs, 14551402878 residues

Total number of hits satisfying chosen parameters:      4109280

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :       GenEmbl:*
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                41:  em_htgo_other:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	3162.8	87.2	3953	9	HSCLCN3	X78520 H. sapiens
	2	2298	63.4	2457	9	AF029346	AF029346 Homo sapi
	3	2294.8	63.3	2457	9	AF172729	AF172729 Homo sapi
	4	2107.6	58.1	2457	4	AF029348	AF029348 Oryctolag
	5	2104.8	58.1	2880	10	RATCLC3	D17521 Rat mRNA fo
	6	2096.8	57.8	2758	10	MMCLCN5	X78874 M.musculus
	7	2095.4	57.8	2305	10	CPU83464	U83464 Cavia porce
	8	2084.6	57.5	2283	10	AF133214	AF133214 Cavia por
	9	2034.2	56.1	2659	10	AF142778	AF142778 Rattus no
	10	2029.2	56.0	2457	10	AF029347	AF029347 Mus muscu
	11	1632.2	45.0	2586	5	XLCLC3	Y09941 Xenopus lae
	12	1313.6	36.2	4538	5	AF182215	AF182215 Tilapia m
	13	1202.6	33.2	2244	10	RNCHCHANP	Z36944 R.norvegicu
	14	1188.6	32.8	3173	9	HSCLCN5GN	X91906 H.sapiens v
	15	1187	32.7	3046	9	AK056560	AK056560 Homo sapi
	16	1178.6	32.5	2241	4	AF195523	AF195523 Oryctolag
	17	1174.6	32.4	3353	9	AK092049	AK092049 Homo sapi
	18	1172.6	32.3	2550	10	RATCLC5	D50497 Rattus norv
	19	1169.4	32.3	2550	10	RNCLC5	Z56277 R.norvegicu
	20	1164.6	32.1	2655	10	AF134117	AF134117 Mus muscu
	21	1161.8	32.0	4454	9	AB019432	AB019432 Homo sapi
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	23	1156.2	31.9	2293	10	AF326968	AF326968 Cavia por
	24	1155.8	31.9	2739	10	MMCLCN4MR	Z49916 M.musculus
	25	1155.4	31.9	3214	9	HSCLCPX	X77197 H.sapiens m
	26	1141.2	31.5	2922	5	AF063904	AF063904 Xenopus l
	27	1138	31.4	3016	5	XLCLC5	Y09940 X.laevis mR
	28	1132.6	31.2	2306	4	AF274055	AF274055 Sus scrof
	29	1088.8	30.0	135342	9	AC106878	AC106878 Homo sapi
	30	1057	29.2	3764	5	AF182216	AF182216 Tilapia m
	31	1018	28.1	2447	10	BC005553	BC005553 Mus muscu
	32	796	22.0	3318	3	AY129438	AY129438 Drosophil
	33	789.6	21.8	3366	6	AX155079	AX155079 Sequence
	34	718	19.8	726	9	HUMZD78B11	AF086418 Homo sapi
	35	520.4	14.4	2686	3	AB035090	AB035090 Caenorhab
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	40	483.4	13.3	155872	2	AC097042	AC097042 Rattus no
	41	478.6	13.2	73885	2	AC025307	AC025307 Homo sapi
c	42	478.6	13.2	150489	2	AC069491	AC069491 Homo sapi
c	43	478.6	13.2	157574	9	AL592293	AL592293 Human DNA
	44	443.8	12.2	1424	9	HSDDCG	X81836 H.sapiens m
c	45	404.6	11.2	59865	2	AC014422	AC014422 Drosophil

ALIGNMENTS

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RESULT 1
HSCLCN3
LOCUS       HSCLCN3                3953 bp    mRNA    linear   PRI 21-NOV-1995
DEFINITION  H. sapiens RNA for CLCN3.
ACCESSION   X78520
VERSION     X78520.1  GI:854101
KEYWORDS    chloride channel; chloride channel 3; chloride channel protein;
            CLCL3 gene.
SOURCE      Homo sapiens.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 3953)
  AUTHORS   Borsani,G., Rugarli,E.I., Taglialatela,M., Wong,C. and Ballabio,A.
  TITLE     Characterization of a human and murine gene (CLCN3) sharing
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            similarities to voltage-gated chloride channels and to a yeast
            integral membrane protein
  JOURNAL   Genomics 27 (1), 131-141 (1995)
  MEDLINE   95394449
   PUBMED   7665160
REFERENCE   2  (bases 1 to 3953)
  AUTHORS   Borsani,G.
  TITLE     Direct Submission
  JOURNAL   Submitted (29-MAR-1994) G. Borsani, Baylor College of Medicine,
            Institute for Molecular Genetics, One Baylor Plaza, Houston, TX
            77030, USA
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ORIGIN

  Query Match             87.2%;  Score 3162.8;  DB 9;  Length 3953;
  Best Local Similarity   98.0%;  Pred. No. 0;
  Matches 3252;  Conservative    0;  Mismatches   47;  Indels   21;  Gaps    4;
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Qy        237 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 296
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Qy        297 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 356
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Qy        477 CTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATG 536
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Qy        537 ACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGT 596
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Qy   2691 AATGCTGGTGGAATGGAGGAGTTGTTTGGGGAGGGAAAGGAGAGAGAAGGAAAGGAGTGA 2750
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Qy   2751 GGTATTTCCCGTCTAACAGAAAGCAGCGTATCAACTCCTATTGTTCTGCACTGGATGCAT 2810
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Db   3168 GGTATTTCCCGTCTAACAGAAAGCAGCGTATCAACTCCTATTGTTCTGCACTGGATGCAT 3227

Qy   2811 TCAGCTGAGGATGTGCCTGATAGTGCAGGCTTGCGCCTCAACAGAGATGACAGCAGAGTC 2870
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Db   3228 TCAGCTGAGGATGTGCCTGATAGTGCAGGCTTGCGCCTCAACAGAGATGACAGCAGAGTC 3287

Qy   2871 CTCGAGCACCTGGCCTGTTGCTCCAACATTGCAAAGACACATTATCAGTCCCTATTTCTA 2930
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Db   3288 CTCGAGCACCTGGCCTGTTTGCTCA-------CATGCAAGACACATACAGCCCTATTCTA 3340

Qy   2931 GAGGGATTACTTTGAATTGAGCCATCTATAAAACTGCAAGGTCTTGCCCTTTTTTTAAT 2990
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Qy   2991 CAAAACTGTTCTGTTTAATTCATGAATTGTATAGTTAAGCATTACCTTTCTACATTCCAG 3050
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Qy   3051 AAGAGCCTTTATTTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTACTGAGCTGTAACA 3110
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Qy   3111 AAGCCTCTTTAAATCGGTGTATCCTTTTGAAGCAGTCCTTTCTCATATTGAGATGTACTG 3170
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Qy   3171 TGATTTTACTGAGGTTTCATCACAAGAAGGGAGTGTTTCTTGTGCCATTAACCATGTAGT 3230
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Qy   3231 TTGTACCATCACTAAATGCTTGGAACAGTACACATGCACCACAACAAAGGCTCATCAAAC 3290
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Qy   3351 CCGAAAACAATGAAGCTTGGTTTTAAAGGATAAAGTTTTCTTTTTTGTTTTCCTCTCAGA 3410
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Qy   3411 CTTTATGGATAATGTGACCGGGTCTTATGCAAATTTTCTATTTCTAAAACTACTACTATG 3470
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Qy    3531 AAAAAAAAAAAAAAAAAAAA 3550
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RESULT 2
AF029346
LOCUS       AF029346                2457 bp    mRNA    linear   PRI 07-JAN-1998
DEFINITION  Homo sapiens chloride channel protein 3 (CLCN3) mRNA, complete cds.
ACCESSION   AF029346
VERSION     AF029346.1  GI:2599547
KEYWORDS    .
SOURCE      Homo sapiens.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 2457)
  AUTHORS   Rae,J.L. and Shepard,A.R.
  TITLE     Direct Submission
  JOURNAL   Submitted (09-OCT-1997) Physiology and Biophysics, Mayo Foundation,
            200 1st Street SW, Rochester, MN 55905, USA
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BASE COUNT      681 a    481 c    589 g    706 t
ORIGIN

  Query Match             63.4%;  Score 2298;  DB 9;  Length 2457;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches 2298;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy     237 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 296
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Db     160 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 219

Qy     297 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 356
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     220 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 279

Qy     357 GTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAA 416
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Db     280 GTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAA 339

Qy     417 TCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACA 476
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Db     340 TCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACA 399

Qy     477 CTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATG 536
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Db     400 CTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATG 459

Qy     537 ACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGT 596
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Qy     597 TGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 656
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Db     520 TGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 579

Qy     657 GCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATG 716
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Db     580 GCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATG 639

Qy     717 TACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCT 776
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Db     640 TACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCT 699

Qy     777 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATC 836
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Db     700 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATC 759

Qy     837 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 896
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     760 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 819

Qy     897 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGA 956
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Db     820 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGA 879

Qy     957 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTG 1016
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Db     880 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTG 939

Qy    1017 CTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTT 1076
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Db     940 CTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTT 999

Qy    1077 CTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTT 1136
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Db    1000 CTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTT 1059

Qy    1137 TTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCGT 1196
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Db    1060 TTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCGT 1119

Qy    1197 CTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1256
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Db    1120 CTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1179

Qy    1257 ATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGCC 1316
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Qy    1317 TGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATT 1376
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Db    1240 TGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATT 1299

Qy    1377 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGT 1436
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Db    1300 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGT 1359

Qy    1437 GAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGAC 1496
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Qy    1497 TACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGGC 1556
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Qy   1557 ATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCATAATG 1616
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Qy   1917 GTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACAC 1976
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Qy   2097 AATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCCT 2156
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Db   2080 GTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACA 2139

Qy   2217 ATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGT 2276
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RESULT 3
AF172729
LOCUS       AF172729                2457 bp    mRNA    linear   PRI 05-JUN-2001
DEFINITION  Homo sapiens chloride channel 3 mRNA, complete cds.
ACCESSION   AF172729
VERSION     AF172729.1  GI:5759223
KEYWORDS    .
SOURCE      Homo sapiens.
  ORGANISM  Homo sapiens
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            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 2457)
  AUTHORS   Huang,P., Liu,J., Di,A., Robinson,N.C., Musch,M.W., Kaetzel,M.A.
            and Nelson,D.J.
  TITLE     Regulation of human CLC-3 channels by multifunctional
            Ca2+/calmodulin-dependent protein kinase
  JOURNAL   J. Biol. Chem. 276 (23), 20093-20100 (2001)
  MEDLINE   21282914
   PUBMED   11274166
REFERENCE   2  (bases 1 to 2457)
  AUTHORS   Huang,P., Di,A., Kaetzel,M.A., Musch,M.W., Xie,W., Johnson,X.D. and
            Nelson,D.J.
  TITLE     Molecular Identification of human CLC-3 as the CaMKII-activated
            Chloride channel: A potential cystic fibrosis bypass pathway
  JOURNAL   Unpublished
REFERENCE   3  (bases 1 to 2457)
  AUTHORS   Huang,P., Nissen,J., Johnson,X.D. and Nelson,D.J.
  TITLE     Direct Submission
  JOURNAL   Submitted (27-JUL-1999) Pharmacological & Phusiological Sciences,
            The University of Chicago, 947 E. 58th Street MC0926, Chicago, IL
            60637, USA
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                     DILRHMAQTANQDPASIMFN"
BASE COUNT      681 a    483 c    589 g    704 t
ORIGIN

  Query Match             63.3%;  Score 2294.8;  DB 9;  Length 2457;
  Best Local Similarity   99.9%;  Pred. No. 0;
  Matches 2296;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy    237 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 296
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Qy    297 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 356
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Qy    357 GTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAA 416
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Qy     417 TCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACA 476
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Qy     777 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTAAGTGGATTCATCATC 836
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Qy     837 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 896
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Qy     897 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGA 956
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RESULT 4
AF029348
LOCUS       AF029348                2457 bp    mRNA    linear   MAM 07-JAN-1998
DEFINITION  Oryctolagus cuniculus chloride channel protein 3 (CLCN3) mRNA,
            complete cds.
ACCESSION   AF029348
VERSION     AF029348.1  GI:2599551
KEYWORDS    .
SOURCE      Oryctolagus cuniculus.
  ORGANISM  Oryctolagus cuniculus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
REFERENCE   1  (bases 1 to 2457)
  AUTHORS   Rae,J.L. and Shepard,A.R.
  TITLE     Direct Submission
  JOURNAL   Submitted (09-OCT-1997) Physiology and Biophysics, Mayo Foundation,
            200 1st Street SW, Rochester, MN 55905, USA
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BASE COUNT      669 a    468 c    593 g    727 t
ORIGIN

  Query Match             58.1%;  Score 2107.6;  DB 4;  Length 2457;
  Best Local Similarity   94.8%;  Pred. No. 0;
  Matches 2179;  Conservative    0;  Mismatches  119;  Indels    0;  Gaps    0;

Qy        237 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 296
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Qy        717 TACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCT 776
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Qy        777 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTAAGTGGATTCATCATC 836
              |||||||||||||||||||||||||||||||||||||| |||| ||||||||||||||||
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Qy        837 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 896
              |||||||||||||||||||||||||||||||||||||||||||| || || |||||||||
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Qy   2097 AATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCCT 2156
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Db   2020 AATATGACAGTGGATGATATAGAAAATATGATAAATGAAACAAGCTACAATGGCTTTCCT 2079

Qy   2157 GTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACA 2216
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Db   2080 GTTATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCTCTCAGAAGAGATCTGACA 2139

Qy   2217 ATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGT 2276
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Db   2140 ATTGCAATAGAAAGTGCCAGAAAAAAACAAGAAGGTATCGTTGGTAGCTCTCGAGTGTGT 2199

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Qy   2337 ATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGAT 2396
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Db   2260 ATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGAC 2319

Qy   2397 ATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGC 2456
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Db   2320 ATCTTCCGAAAGCTGGGGCTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGC 2379

Qy   2457 ATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGCT 2516
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Db   2380 ATTATAACAAAAAAAGATATCCTCCGTCATATGGCCCAGACGGCAAACCAAGACCCCGCT 2439

Qy   2517 TCAATAATGTTCAACTGA 2534
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Db   2440 TCAATAATGTTCAACTGA 2457
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RESULT 5
RATCLC3

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LOCUS       RATCLC3                 2880 bp    mRNA    linear   ROD 04-FEB-1999
DEFINITION  Rat mRNA for protein kinase C-regulated chloride channel, complete
            cds.
ACCESSION   D17521
VERSION     D17521.1  GI:473727
KEYWORDS    CLC family; protein kinase C-regulated chloride channel.
SOURCE      Rattus rattus kidney cDNA to mRNA, clone ClC-3.
  ORGANISM  Rattus rattus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
            Rattus.
REFERENCE   1  (bases 1 to 2880)
  AUTHORS   Kawasaki,M., Uchida,S., Monkawa,T., Miyawaki,A., Mikoshiba,K.,
            Marumo,F. and Sasaki,S.
  TITLE     Cloning and expression of a protein kinase C-regulated chloride
            channel abundantly expressed in rat brain neuronal cells
  JOURNAL   Neuron 12 (3), 597-604 (1994)
  MEDLINE   94206538
REFERENCE   2  (bases 1 to 2880)
  AUTHORS   Kawasaki,M.
  TITLE     Direct Submission
  JOURNAL   Submitted (31-AUG-1993) Masanobu Kawasaki, Tokyo Medical and Dental
            University, Second Department of Internal Medicine; 1-5-45 Yushima,
            Bunkyo-ku, Tokyo 113, Japan (Tel:03-3813-6111, Fax:03-3818-7177)
COMMENT     Submitted (31-Aug-1993) to DDBJ by:
            Masanobu kawasaki
            Second Dept. of Internal Medicine
            Tokyo Medical and Dental University
            1-5-45 Yushima, Bunkyo-ku
            Tokyo 113
            Japan
            Phone: 03-3813-6111
            Fax:   03-3818-7177.
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                     FSLEEVSYYFPLKTLWRSFFAALVAAFVLRSINPFGNSRLVLFYVEYHTPWYLFELFP
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BASE COUNT      704 a    639 c    763 g    774 t
ORIGIN

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  Best Local Similarity   92.4%;  Pred. No. 0;
  Matches 2214;  Conservative    0;  Mismatches  182;  Indels    0;  Gaps    0;

Qy    236 AGGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGA 295
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Qy    296 TCTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTG 355
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Db    543 TCTTTTGGATGAGCCCATCCCAGGTGTCGGTACATACGATGATTTCCATACTATTGACTG 602

Qy    356 GGTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGA 415
Db    603 GGTGCGAGAAAAGTGTAAGGACAGAGAAAGGCACAGACGGATCAACAGTAAAAAAAAAGA 662

Qy    416 ATCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAAC 475
Db    663 ATCAGCATGGGAAATGACAAAAAGTCTATATGATGCTTGGTCAGGATGGCTTGTAGTTAC 722

Qy    476 ACTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGAT 535
Db    723 ACTGACGGGATTGGCGTCAGGGGCGCTGGCTGGATTGATAGACATTGCTGCTGACTGGAT 782

Qy    536 GACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTG 595
Db    783 GACTGACCTGAAAGAGGGCATCTGCCTCAGTGCATTGTGGTACAACCATGAACAGTGTTG 842

Qy    596 TTGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATG 655
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Qy    656 GGCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAAT 715
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Qy    716 GTACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGC 775
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Qy    776 TCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTAAGTGGATTCATCAT 835
Db   1023 TCCGTATGCCTGTGGCTCCGGAATTCCAGAGATTAAAACTATTTTGAGTGGATTCATCAT 1082

Qy    836 CAGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGT 895
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Qy    896 GGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGG 955
Db   1143 GGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCTTGGTACATGTTGCCTGCTGCTGTGG 1202

Qy    956 AAATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGT 1015
Db   1203 AAATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAATGAAGCTAAAAAGAGGGAGGT 1262

Qy   1016 GCTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGT 1075
Db   1263 GCTGTCAGCCGCCTCAGCTGCTGGTGTCTCTGTGGCTTTTGGTGCGCCAATTGGAGGAGT 1322

Qy   1076 TCTTTTTAGCCTGGAAGAGGTTAGCTATTATTTCCTCTCAAAACTTTATGGAGATCATT 1135
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Qy   1256 TATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGC 1315
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Qy   1316 CTGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTAT 1375
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Qy   1376 TGTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAG 1435
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Qy   1436 TGAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGA 1495
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Qy   1496 CTACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGG 1555
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Db   1803 CGTTGGAGTATATTCAGCTATCTGGCAGTTGTGCCTAGCACTCATATTTAAAATAATAAT 1862

Qy   1616 GACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGCCAT 1675
Db   1863 GACAGTATTCACTTTTGGTATCAAGGTCCCGTCGGGCCTGTTTATCCCCAGCATGGCGAT 1922

Qy   1676 TGGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCACCA 1735
Db   1923 CGGAGCCATTGCAGGGAGGATTGTGGGGATTGCTGTGGAGCAGCTCGCCTACTACCACCA 1982

Qy   1736 CGACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCT 1795
Db   1983 CGACTGGTTCATCTTCAAGGAGTGGTGTGAGGTCGGGGCTGACTGCATCACTCCTGGGCT 2042

Qy   1796 TTATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCCCT 1855
Db   2043 GTATGCCATGGTTGGTGCTGCCGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCTCT 2102

Qy   1856 GGTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGC 1915
Db   2103 GGTGGTTATTGTTTTTGAACTTACTGGAGGCTTGGAATATATTGTTCCTCTTATGGCTGC 2162

Qy   1916 AGTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACA 1975
Db   2163 AGTAATGACCAGTAAATGGGTTGGTGATGCCTTTGGTAGGGAAGGTATTTATGAAGCACA 2222

Qy   1976 CATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCT 2035
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Qy   2036 GGCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACAGGA 2095
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Qy   2096 CAATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCC 2155
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Qy   2216 AATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTG 2275
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Qy   2396 TATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGG 2455
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Qy   2456 CATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGC 2515
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Qy     2576 TATTTGTTGAATAGCACAACTCTTTAACCTGAGGGAGTCATCTACTTTTTTTCCT 2631
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Db     2823 CGTTTGTTGAATAGCACAATTCTTTAATCTGCGGGACTCGTCCACTTTTTCTTCT 2878
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RESULT 6
MMCLCN5
LOCUS       MMCLCN5                 2758 bp    mRNA    linear   ROD 17-FEB-1997
DEFINITION  M.musculus mRNA for Clcn3.
ACCESSION   X78874
VERSION     X78874.1  GI:854275
KEYWORDS    chloride channel 3; Clcn3 gene.
SOURCE      Mus musculus.
  ORGANISM  Mus musculus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
REFERENCE   1  (bases 1 to 2758)
  AUTHORS   Borsani,G.
  TITLE     Direct Submission
  JOURNAL   Submitted (19-APR-1994) G. Borsani, Baylor College of Medicine,
            Institute for Molecular Genetics, One Baylor Plaza, Houston TX
            77030, USA
REFERENCE   2  (bases 1 to 2758)
  AUTHORS   Borsani,G., Rugarli,E.I., Taglialatela,M., Wong,C. and Ballabio,A.
  TITLE     Characterization of a human and murine gene (CLCN3) sharing
            similarities to voltage-gated chloride channels and to a yeast
            integral membrane protein
  JOURNAL   Genomics 27 (1), 131-141 (1995)
  MEDLINE   95394449
   PUBMED   7665160
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Qy      296 TCTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTG 355
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Qy      356 GGTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGA 415
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Db      480 GGTGCGAGAGAAGTGTAAGGACAGAGAAAGGCACAGACGGATCAACAGTAAAAAAAAAGA 539

Qy      416 ATCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAAC 475
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Db      540 ATCAGCATGGGAAATGACAAAAAGTCTGTATGACGCCTGGTCAGGATGGCTTGTCGTTAC 599

Qy      476 ACTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGAT 535
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Qy      536 GACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTG 595
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Db      660 GACTGACCTGAAGGAGGGCATCTGCCTCAGTGCATTGTGGTACAACCATGAACAGTGTTG 719

Qy      596 TTGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATG 655
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Qy      656 GGCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAAT 715
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Db      780 GGCAGAGTTAATCATTGGCCAAGCAGAGGGCCCTGGATCTTATATCATGAACTACATCAT 839

Qy      716 GTACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGC 775
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Db      840 GTATATCTTTTGGGCTTTGAGTTTTGCCTTTCTTGCAGTTTCTTTGGTGAAAGTATTTGC 899

Qy      776 TCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCAT 835
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Db      900 TCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTGAGTGGATTTATCAT 959

Qy      836 CAGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGT 895
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Db      960 CAGAGGATACTTGGGAAAATGGACTTTAATGATTAAAACTATCACGTTAGTGCTGGCTGT 1019

Qy      896 GGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGG 955
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Qy     1016 GCTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGT 1075
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Db     1140 GCTGTCAGCCGCCTCAGCTGCTGGGGTTTCTGTGGCTTTTGGTGCACCGATCGGAGGAGT 1199

Qy     1076 TCTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATT 1135
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Db     1200 TCTTTTTAGCTTGGAGGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATT 1259

Qy     1136 TTTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCG 1195
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Db     1260 TTTTGCTGCTTTGGTGGCAGCATTTGTTTTGAGATCCATCAATCCATTTGGTAACAGCCG 1319

Qy     1196 TCTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTT 1255
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Db     1320 TCTGGTCCTCTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTT 1379
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Qy   1256 TATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGC 1315
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Qy   1316 CTGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTAT 1375
Db   1440 CTGGTGTCGTCGACGCAAGTCCACCAAATTTGGAAAGTATCCTGTTCTCGAAGTCATTAT 1499

Qy   1376 TGTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAG 1435
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Qy   1436 TGAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGA 1495
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Qy   1496 CTACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGG 1555
Db   1620 CTACAGAAATGACATGAATGCCAGTAAAATTGTTGACGATATTCCTGACCGTCCAGCAGG 1679

Qy   1556 CATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCATAAT 1615
Db   1680 CGTTGGAGTATATTCAGCTATCTGGCAGTTGTGCCTAGCGCTCATATTTAAAATAATAAT 1739

Qy   1616 GACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGCCAT 1675
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Qy   1736 CGACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCT 1795
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Qy   1796 TTATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCCCT 1855
Db   1920 GTATGCCATGGTTGGGGCTGCTGCGTGCTTAGGTGGTGTGACAAGAATGACTGTGTCTCT 1979

Qy   1856 GGTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGC 1915
Db   1980 GGTGGTTATTGTTTTTGAACTTACTGGAGGCTTGGAATATATTGTTCCTCTTATGGCTGC 2039

Qy   1916 AGTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACA 1975
Db   2040 AGTAATGACCAGTAAATGGGTTGGTGATGCCTTTGGTAGGGAAGGTATTTATGAAGCACA 2099

Qy   1976 CATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCT 2035
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Db   2160 GGCTGCTGATGTTATGAGACCTCGAAGAAGTGACCCTCCCTTAGCTGTTTTGACACAGGA 2219

Qy   2096 CAATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCC 2155
Db   2220 CAATATGACAGTAGATGACATAGAAAACATGATTAATGAAACCAGCTATAATGGCTTTCC 2279

Qy   2156 TGTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGAC 2215
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Qy   2216 AATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTG 2275
Db   2340 TATTGCAATAGAAAGTGCCAGAAAAAAACAAGAAGGGATTGTTGGCAGTTCTCGGGTGTG 2399

Qy   2276 TTTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTCGAAG 2335
Db   2400 TTTTGCACAGCATACTCCATCTCTTCCAGCAGAAAGTCCACGGCCATTAAAACTGAGAAG 2459

Qy   2336 CATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGA 2395
Db   2460 CATCCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTAGA 2519

Qy   2396 TATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGG 2455
Db   2520 CATCTTTCGAAAGCTTGGTCTGAGGCAGTGCCTTGTAACTCACAACGGACGCCTCCTTGG 2579

Qy   2456 CATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGC 2515
Db   2580 CATTATAACAAAAAAAGATATCCTCCGTCATATGGCCCAGACGGCAAACCAAGACCCCGC 2639

Qy   2516 TTCAATAATGTTCAACTGAATCTCACAGATGAGGAGAGAGAAGAAACGGAAGAGGAAGTT 2575
Db   2640 TTCAATAATGTTCAACTGAGTCCTGTAGATGAGGACAGAGAGGAGACAGAAGAGGAAGTT 2699

Qy   2576 TATTTGTTGAATAGCACAACTCTTTAACCTGAGGGAGTCATCTACTTTTTTTTCCT 2631
Db   2700 CGTTTGTTGAATAGCACAATTCTTTAATCTGCGGGACTCGTCCACTTTTTTCTTCT 2755
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RESULT 7
CPU83464
LOCUS       CPU83464                2305 bp    mRNA    linear   ROD 05-MAY-1999
DEFINITION  Cavia porcellus volume-regulated outwardly-rectifying chloride
            channel (CLC-3) mRNA, complete cds.
ACCESSION   U83464
VERSION     U83464.2  GI:4753143
KEYWORDS    .
SOURCE      Cavia porcellus.
  ORGANISM  Cavia porcellus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
REFERENCE   1  (bases 1 to 2305)
  AUTHORS   Duan,D., Winter,C., Cowley,S., Hume,J.R. and Horowitz,B.
  TITLE     Molecular identification of a volume-regulated chloride channel
  JOURNAL   Nature 390 (6658), 417-421 (1997)
  MEDLINE   98049352
   PUBMED   9389484
REFERENCE   2  (bases 1 to 2305)
  AUTHORS   Duan,D., Winter,C., Hume,J.R. and Horowitz,B.
  TITLE     Direct Submission
  JOURNAL   Submitted (31-DEC-1996) Physiology, UNSOM, 107 Anderson Building,
            Reno, NV 89557, USA
REFERENCE   3  (bases 1 to 2305)
  AUTHORS   Duan,D., Winter,C., Hume,J.R. and Horowitz,B.
  TITLE     Direct Submission
  JOURNAL   Submitted (05-MAY-1999) Physiology, UNSOM, 107 Anderson Building,
            Reno, NV 89557, USA
  REMARK    Sequence update by submitter
COMMENT     On May 5, 1999 this sequence version replaced gi:1791294.
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BASE COUNT      627 a    442 c     552 g     684 t
ORIGIN

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  Matches 2174;  Conservative    0;  Mismatches  131;  Indels    0;  Gaps    0;

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Qy     306 GAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGGGTGCGAGAA 365
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Qy     366 AAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAATCAGCATGG 425
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Qy     426 GAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACACTAACAGGA 485
Db     181 GAAATGACAAAAAGTTTGTATGATGCATGGTCAGGATGGCTTGTAGTAACACTAACAGGA 240

Qy     486 TTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATGACTGACCTA 545
Db     241 CTGGCATCAGGAGCACTGGCTGGATTAATAGACATTGCTGCTGATTGGATGACTGATTTA 300

Qy     546 AAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGTTGGGGATCT 605
Db     301 AAGGAAGGCATTTGCCTTAGTGCATTATGGTATAACCATGAACAGTGTTGTTGGGGATCT 360

Qy     606 AATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGGGCAGAATTA 665
Db     361 AATGAAACAACATTTGAAGAAAGGGATAAATGTCCACAGTGGAAAACATGGGCAGAATTA 420

Qy     666 ATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATGTACATCTTC 725
Db     421 ATAATAGGTCAAGCGGAGGGTCCTGGTTCTTACATCATGAATTATATAATGTATATTTTC 480

Qy     726 TGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCTCCATATGCC 785
Db     481 TGGGCCTTGAGTTTTGCCTTCCTTGCAGTTTCCTTGGTAAAAGTATTTGCCCCATATGCC 540

Qy     786 TGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATCAGAGGTTAC 845
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Qy     846 TTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTGGCATCAGGT 905
Db     601 TTGGGAAAGTGGACTTTAATGATTAAAACCATTACTTTAGTACTTGCTGTGGCATCAGGC 660

Qy     906 TTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGAAATATCTTT 965
Db     661 TTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGTGGAAATATCTTT 720

Qy     966 TCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTGCTATCAGCT 1025
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Qy    1026 GCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTTCTTTTTAGC 1085
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Qy    1086 CTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTTTTTGCTGCT 1145
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Qy    1326 CGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATTGTTGCAGCC 1385
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Qy    1386 ATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGTGAACTGATC 1445
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Qy    1686 GCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCACCACGACTGGTTT 1745
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Qy    1746 ATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCTTTATGCCATG 1805
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Qy    1866 GTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGCAGTCATGACC 1925
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Qy    1986 AATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCTGGCTGCTGAC 2045
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Qy    2046 GTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACAGGACAATATGACA 2105
Db    1801 GTCATGAGACCTCGAAGGAATGATCCTCCATTAGCCGTCTTGACCCAGGACAATATGACA 1860

Qy    2106 GTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCCTGTCATAATG 2165
Db    1861 GTGGACGACATAGAAAACATGATTAATGAAACCAGCTACAATGGCTTTCCTGTCATAATG 1920

Qy    2166 TCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACAATTGCAATA 2225
Db    1921 TCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTTAGAAGAGACTTGACAATTGCAATA 1980

Qy    2226 GAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGTTTTGCACAG 2285
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Qy     2346 ATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGATATTTTCCGA 2405
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Qy     2406 AAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGCATTATAACA 2465
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Qy     2466 AAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGCTTCAATAATG 2525
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LOCUS       AF133214                2283 bp    mRNA    linear   ROD 01-JUN-1999
DEFINITION  Cavia porcellus chloride channel Clc-3 (CLCN3) mRNA, complete cds.
ACCESSION   AF133214
VERSION     AF133214.1  GI:4928465
KEYWORDS    .
SOURCE      Cavia porcellus.
  ORGANISM  Cavia porcellus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
REFERENCE   1  (bases 1 to 2283)
  AUTHORS   Varela,D., Cid,L.P. and Sepulveda,F.V.
  TITLE     Direct Submission
  JOURNAL   Submitted (05-MAR-1999) Instituto de Ciencias Biomedicas, Facultad
            de Medicina, Universidad de Chile, Independencia 1027, Santiago, RM
            6530499, Chile
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ORIGIN
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Qy      312 ATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGGGTGCGAGAAAAATGT 371
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Qy      372 AAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAATCAGCATGGGAAATG 431
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Qy      432 ACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACACTAACAGGATTGGCA 491
Db      181 ACAAAAAGTTTGTATGATGCATGGTCAGGATGGCTTGTAGTAACACTAACAGGACTGGCA 240

Qy      492 TCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATGACTGACCTAAAGGAG 551
Db      241 TCAGGAGCACTGGCTGGATTAATAGACATTGCTGCTGATTGGATGACTGATTTAAAGGAA 300

Qy      552 GGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGTTGGGGATCTAATGAA 611
Db      301 GGCATTTGCCTTAGTGCATTATGGTATAACCATGAACAGTGTTGTTGGGGATCTAATGAA 360

Qy      612 ACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGGGCAGAATTAATCATA 671
Db      361 ACAACATTTGAAGAAAGGGATAAATGTCCACAGTGGAAAACATGGGCAGAATTAATAATA 420

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Qy      732 TTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCTCCATATGCCTGTGGC 791
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Qy      792 TCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATCAGAGGTTACTTGGGA 851
Db      541 TCTGGAATTCCAGAGATTAAAACTATTTTGAGTGGATTCATCATCAGAGGTTACTTGGGA 600

Qy      852 AAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTGGCATCAGGTTTGAGT 911
Db      601 AAGTGGACTTTAATGATTAAAACCATTACTTTAGTACTTGCTGTGGCATCAGGCTTGAGT 660

Qy      912 TTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGAAATATCTTTTCCTAC 971
Db      661 TTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGTGGAAATATCTTTTCCTAC 720

Qy      972 CTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTGCTATCAGCTGCCTCA 1031
Db      721 CTCTTTCCAAAGTATAGCACAAATGAAGCTAAAAAAAGGGAGGTGCTGTCAGCTGCCTCA 780

Qy     1032 GCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTTCTTTTTAGCCTGGAA 1091
Db      781 GCTGCAGGTGTTTCTGTGGCTTTTGGGGCACCGATTGGAGGAGTTCTTTTTAGCCTGGAG 840

Qy     1092 GAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTTTTTGCTGCTTTAGTG 1151
Db      841 GAGGTTAGCTATTATTTTCCTCTTAAAACTTTATGGAGATCATTTTTTGCTGCTTTAGTA 900

Qy     1152 GCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCGTCTGGTCCTTTTTTAT 1211
Db      901 GCTGCATTTGTTTTGAGATCCATCAATCCATTTGGGAACAGCCGTCTGGTCCTTTTTTAT 960

Qy     1212 GTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTTATTCTTCTAGGGGTA 1271
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Db     961 GTGGAGTATCATACACCATGGTACCTTTTTGAATTGTTTCCTTTTATTCTCCTTGGGGTG 1020

Qy    1272 TTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGCCTGGTGTCGTCGACGC 1331
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Db    1021 TTTGGAGGACTTTGGGGAGCCTTTTTATTAGGGCAAATATTGCCTGGTGTCGTCGACGC 1080

Qy    1332 AAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATTGTTGCAGCCATTACT 1391
           |||||||| ||||||||||||||||| ||||| |||||||||||||||||||||||||||
Db    1081 AAGTCCACCAAATTTGGAAAGTATCCTGTTCTTGAAGTCATTATTGTTGCAGCCATTACT 1140

Qy    1392 GCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGTGAACTGATCAAAGAG 1451
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Db    1141 GCTGTGATAGCCTTCCCTAATCCATATACTAGACTCAACACCAGTGAACTGATTAAAGAG 1200

Qy    1452 CTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGACTACAGAAATGACATG 1511
           ||||| |||||||||||||||||||||||||||||||| ||||||||| |||||||||||
Db    1201 CTTTTCACAGACTGTGGTCCCCTGGAATCCTCTTCTCTGTGTGACTACCGAAATGACATG 1260

Qy    1512 AATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGGCATTGGAGTATATTCA 1571
           ||||||||||| ||||| ||||| ||||||||||||||||||||| ||||||||||||||
Db    1261 AATGCCAGTAAGATTGTTGATGATATTCCTGATCGTCCAGCAGGCGTTGGAGTATATTCA 1320

Qy    1572 GCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCATAATGACAGTATTCACTTTT 1631
           |||||||||||||||||| | |||||||||||||||||||||||||||||||||||||| 
Db    1321 GCTATATGGCAGTTATGCTTAGCACTCATATTTAAAATCATAATGACAGTATTCACTTTC 1380

Qy    1632 GGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGCCATTGGAGCGATCGCAGGA 1691
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Db    1381 GGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGCCATTGGAGCAATTGCAGGA 1440

Qy    1692 AGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCACCACGACTGGTTTATCTTT 1751
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Db    1441 AGGATTGTGGGGATTGCAGTGGAACAACTTGCCTACTTTCACCATGACTGGTTTATCTTT 1500

Qy    1752 AAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCTTTATGCCATGGTTGGT 1811
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Db    1501 AAGGAGTGGTGTGAGGTTGGGGCTGATTGCATTACACCCGGCCTTTATGCCATGGTTGGT 1560

Qy    1812 GCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCCCTGGTGGTTATTGTTTTT 1871
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Db    1561 GCTGCTGCGTGCTTAGGTGGCGTGACAAGGATGACTGTCTCCCTGGTGGTTATTGTTTTT 1620

Qy    1872 GAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGCAGTCATGACCAGTAAA 1931
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Db    1621 GAACTTACTGGAGGCTTGGAATATATTGTACCTCTTATGGCTGCAGTAATGACCAGTAAA 1680

Qy    1932 TGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACACATCCGATTAAATGGA 1991
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Db    1681 TGGGTTGGAGATGCCTTTGGTAGAGAAGGCATCTATGAAGCACACATCCGTTTAAATGGA 1740

Qy    1992 TACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCTGGCTGCTGACGTTATG 2051
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Qy    2052 AGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACAGGACAATATGACAGTGGAT 2111
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Db    1801 AGACCTCGAAGGAATGATCCTCCATTAGCCGTCTTGACCCAGGACAATATGACAGTGGAC 1860

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Qy    2172 GAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACAATTGCAATAGAAAGT 2231
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Qy    2232 GCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGTTTTGCACAGCACACC 2291
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Qy    2292 CCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTCGAAGCATTCTTGACATGAGC 2351
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Db    2041 CCATCTCTTCCAGCGGAAAGTCCTCGACCATTGAAGCTGCGGAGCATCCTTGACATGAGC 2100

Qy    2352 CCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGATATTTTCCGAAAGCTG 2411
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Db    2101 CCTTTTACAGTGACAGACCACACCCCAATGGAGATCGTGGTGGATATCTTCCGGAAACTG 2160

Qy    2412 GGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGCATTATAACAAAAAAA 2471
           || ||||||||||||||||| || |||||||| |||||||||||||||||||||||||||
Db    2161 GGGCTGAGGCAGTGCCTTGTCACCCACAATGGACGCCTCCTTGGCATTATAACAAAAAAA 2220

Qy    2472 GATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGCTTCAATAATGTTCAAC 2531
           ||||||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db    2221 GATATCCTCCGTCATATGGCCCAGACGGCAAACCAAGACCCCGCTTCAATAATGTTCAAC 2280

Qy    2532 TGA 2534
           |||
Db    2281 TGA 2283


RESULT 9
AF142778
LOCUS       AF142778                2659 bp    mRNA    linear   ROD 12-OCT-2000
DEFINITION  Rattus norvegicus chloride channel protein 3 long form mRNA,
            partial cds.
ACCESSION   AF142778
VERSION     AF142778.1  GI:4762022
KEYWORDS    .
SOURCE      Rattus norvegicus.
  ORGANISM  Rattus norvegicus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
            Rattus.
REFERENCE   1  (bases 1 to 2659)
  AUTHORS   Shimada,K., Li,X., Xu,G., Nowak,D.E., Showalter,L.A. and
            Weinman,S.A.
  TITLE     Expression and canalicular localization of two isoforms of the
            ClC-3 chloride channel from rat hepatocytes
  JOURNAL   Am. J. Physiol. Gastrointest. Liver Physiol. 279 (2), G268-G276
            (2000)
  MEDLINE   20378002
   PUBMED   10915634
REFERENCE   2  (bases 1 to 2659)
  AUTHORS   Shimada,K., Nowak,D.E. and Weinman,S.A.
  TITLE     Direct Submission
  JOURNAL   Submitted (13-APR-1999) Physiology and Biophysics, University of
            Texas Medical Branch, 301 University Blvd., Galveston, TX
            77555-0641, USA
FEATURES             Location/Qualifiers
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                     DCITPGLYAMVGAAACLGGVTRMTVSLVVIVFELTGGLEYIVPLMAAVMTSKWVGDAF
                     GREGIYEAHIRLNGYPFLDAKEEFTHTTLAADVMRPRRSDPPLAVLTQDNMTVDDIEN
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                    DILRHMAQTANQDPASIMFN"
BASE COUNT     686 a    572 c    676 g    725 t
ORIGIN

  Query Match            56.1%;  Score 2034.2;  DB 10;  Length 2659;
  Best Local Similarity  92.9%;  Pred. No. 0;
  Matches 2132;  Conservative    0;  Mismatches  163;  Indels    0;  Gaps    0;

Qy        237 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGTTCTACACATTTACTGGAT 296
Db        365 GGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGCTCCACACACTTGCTGGAT 424

Qy        297 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 356
Db        425 CTTTTGGATGAGCCCATCCCAGGTGTCGGTACATACGATGATTTCCATACTATTGACTGG 484

Qy        357 GTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAA 416
Db        485 GTGCGAGAAAAGTGTAAGGACAGAGAAAGGCACAGACGGATCAACAGTAAAAAAAAAGAA 544

Qy        417 TCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACA 476
Db        545 TCAGCATGGGAAATGACAAAAAGTCTATATGATGCTTGGTCAGGATGGCTTGTAGTTACA 604

Qy        477 CTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATG 536
Db        605 CTGACGGGATTGGCGTCAGGGGCGCTGGCTGGATTGATAGACATTGCTGCTGACTGGATG 664

Qy        537 ACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGT 596
Db        665 ACTGACCTGAAAGAGGGCATCTGCCTCAGTGCATTGTGGTACAACCATGAACAGTGTTGT 724

Qy        597 TGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 656
Db        725 TGGGGCTCTAATGAGACGACGTTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 784

Qy        657 GCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATG 716
Db        785 GCAGAGTTAATCATAGGTCAAGCAGAGGGTCCTGGATCTTATATCATGAACTACATCATG 844

Qy        717 TACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCT 776
Db        845 TACATCTTTTGGGCTTTGAGTTTTGCCTTTCTTGCAGTTTCCTTGGTGAAAGTATTTGCT 904

Qy        777 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATC 836
Db        905 CCGTATGCCTGTGGCTCCGGAATTCCAGAGATTAAAACTATTTTGAGTGGATTCATCATC 964

Qy        837 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 896
Db        965 AGAGGTTACTTGGGAAAGTGGACTTTAATGATTAAAACCATCACATTAGTGCTGGCTGTG 1024

Qy        897 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGA 956
Db       1025 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCTTGGTACATGTTGCCTGCTGCTGTGGA 1084

Qy        957 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTG 1016
Db       1085 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAATGAAGCTAAAAAGAGGGAGGTG 1144

Qy       1017 CTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTT 1076
Db       1145 CTGTCAGCCGCCTCAGCTGCTGGTGTCTCTGTGGCTTTTGGTGCGCCAATTGGAGGAGTG 1204

Qy       1077 CTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTT 1136
Db       1205 CTTTTTAGTTTGGAGGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCGTTT 1264

Qy       1137 TTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCGT 1196
Db       1265 TTTGCTGCTTTGGTGGCGGCCTTTGTTTTGAGATCCATCAATCCATTTGGTAACAGCCGT 1324

Qy       1197 CTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1256
Db       1325 CTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1384

Qy       1257 ATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGCC 1316
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Qy       1317 TGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATT 1376
Db       1445 TGGTGTCGCCGACGCAAGTCCACCAAATTTGGAAAGTATCCTGTTCTTGAAGTCATTATT 1504

Qy       1377 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGT 1436
Db       1505 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCCAACCCATACACAAGGCTCAACACCAGT 1564

Qy       1437 GAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGAC 1496
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Qy       1497 TACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGGC 1556
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Qy       1557 ATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCATAATG 1616
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Qy       1617 ACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGCCATT 1676
Db       1745 ACAGTATTCACTTTTGGTATCAAGGTCCCGTCGGGCCTGTTTATCCCCAGCATGGCGATC 1804

Qy       1677 GGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCACCAC 1736
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Qy       1737 GACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCTT 1796
Db       1865 GACTGGTTCATCTTCAAGGAGTGGTGTGAGGTCGGGGCTGACTGCATCACTCCTGGGCTG 1924

Qy       1797 TATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCCCTG 1856
Db       1925 TATGCCATGGTTGGTGCTGCCGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCTCTG 1984

Qy       1857 GTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGCA 1916
Db       1985 GTGGTTATTGTTTTTGAACTTACTGGAGGCTTGGAATATATTGTTCCTCTTATGGCTGCA 2044

Qy       1917 GTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACAC 1976
Db       2045 GTAATGACCAGTAAATGGGTTGGTGATGCCTTTGGTAGGGAAGGTATTTATGAAGCACAC 2104

Qy       1977 ATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCTG 2036
Db       2105 ATCCGACTAAATGGGTACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACAACCCTG 2164

Qy       2037 GCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACAGGAC 2096
Db       2165 GCTGCTGATGTCATGAGACCTCGAAGAAGTGACCCTCCCTTAGCTGTTTTGACACAGGAC 2224

Qy       2097 AATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCCT 2156
Db       2225 AATATGACAGTAGATGACATAGAAAACATGATTAATGAGACCAGCTATAATGGCTTTCCT 2284

Qy       2157 GTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACA 2216
Db       2285 GTTATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACA 2344

Qy       2217 ATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGT 2276
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Qy       2277 TTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTCGAAGC 2336
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Db     2405 TTTGCCCAACACACTCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTAAAACTGAGAAGC 2464

Qy     2337 ATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGAT 2396
Db     2465 ATCCTTGACATGAGTCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTAGAC 2524

Qy     2397 ATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGC 2456
Db     2525 ATCTTCCGAAAGCTTGGTCTGAGGCAGTGCCTTGTCACTCACAATGGGCGCCTCCTTGGC 2584

Qy     2457 ATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGCT 2516
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Qy     2517 TCAATAATGTTCAAC 2531
Db     2645 TCAATAATGTTCAAC 2659


RESULT 10
AF029347
LOCUS       AF029347                2457 bp    mRNA    linear   ROD 07-JAN-1998
DEFINITION  Mus musculus chloride channel protein 3 (CLCN3) mRNA, complete cds.
ACCESSION   AF029347
VERSION     AF029347.1  GI:2599549
KEYWORDS    .
SOURCE      Mus musculus.
  ORGANISM  Mus musculus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
REFERENCE   1  (bases 1 to 2457)
  AUTHORS   Rae,J.L. and Shepard,A.R.
  TITLE     Direct Submission
  JOURNAL   Submitted (09-OCT-1997) Physiology and Biophysics, Mayo Foundation,
            200 1st Street SW, Rochester, MN 55905, USA
FEATURES             Location/Qualifiers
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ORIGIN

  Query Match             56.0%;  Score 2029.2;  DB 10;  Length 2457;
  Best Local Similarity   92.7%;  Pred. No. 0;
  Matches 2130;  Conservative    0;  Mismatches  168;  Indels    0;  Gaps    0;

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Qy      297 CTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGATTGG 356
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Qy      357 GTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAA 416
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Qy      417 TCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACA 476
Db      340 TCAGCATGGGAAATGACAAAAAGTCTGTATGACGCCTGGTCAGGATGGCTTGTCGTTACA 399

Qy      477 CTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATG 536
Db      400 CTGACGGGACTGGCATCAGGGGCACTAGCTGGATTGATAGACATTGCTGCTGACTGGATG 459

Qy      537 ACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGT 596
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Qy      597 TGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 656
Db      520 TGGGGCTCTAATGAGACAACGTTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGG 579

Qy      657 GCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATG 716
Db      580 GCAGAGTTAATCATTGGCCAAGCAGAGGGCCCTGGATCTTATATCATGAACTACATCATG 639

Qy      717 TACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCT 776
Db      640 TATATCTTTTGGGCTTTGAGTTTTGCCTTTCTTGCAGTTTCTTTGGTGAAAGTATTTGCT 699

Qy      777 CCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATC 836
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Qy      837 AGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTG 896
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Db      820 GCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGCTGCTGTGGA 879

Qy      957 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTG 1016
Db      880 AATATCTTTTCCTACCTCTTTCCAAAGTATAGCACCAATGAAGCTAAAAAGAGGGAGGTG 939

Qy     1017 CTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTT 1076
Db      940 CTGTCAGCCGCCTCAGCTGCTGGGGTTTCTGTGGCTTTTGGTGCACCGATCGGAGGAGTT 999

Qy     1077 CTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTT 1136
Db     1000 CTTTTTAGCTTGGAGGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTT 1059

Qy     1137 TTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACAGCCGT 1196
Db     1060 TTTGCTGCTTTGGTGGCAGCATTTGTTTTGAGATCCATCAATCCATTTGGTAACAGCCGT 1119

Qy     1197 CTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1256
Db     1120 CTGGTCCTCTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCCTTTT 1179
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Qy   1257 ATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATATTGCC 1316
Db   1180 ATTCTCCTAGGGGTATTTGGAGGGCTTTGGGGAGCTTTTTTATTAGGGCAAATATTGCC 1239

Qy   1317 TGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCATTATT 1376
Db   1240 TGGTGTCGTCGACGCAAGTCCACCAAATTTGGAAAGTATCCTGTTCTCGAAGTCATTATT 1299

Qy   1377 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACACCAGT 1436
Db   1300 GTTGCAGCCATTACTGCTGTGATAGCCTTCCCCAACCCATACACAAGGCTCAACACCAGT 1359

Qy   1437 GAACTGATCAAAGAGCTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTGTGAC 1496
Db   1360 GAACTGATTAAAGAGCTGTTTACAGATTGTGGGCCGTTGGAATCCTCCTCTCTCTGTGAC 1419

Qy   1497 TACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGCAGGC 1556
Db   1420 TACAGAAATGACATGAATGCCAGTAAAATTGTTGACGATATTCCTGACCGTCCAGCAGGC 1479

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Db   1540 ACAGTATTCACTTTTGGTATCAAGGTCCCGTCAGGCTTGTTTATCCCCAGCATGGCCATT 1599

Qy   1677 GGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCACCAC 1736
Db   1600 GGAGCCATTGCAGGGAGAATTGTGGGGATCGCTGTGGAGCAGCTTGCCTACTATCACCAC 1659

Qy   1737 GACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGGCCTT 1796
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Qy   1797 TATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTCCCTG 1856
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Qy   1857 GTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGCTGCA 1916
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Qy   1917 GTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGCACAC 1976
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Qy   1977 ATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCACCCTG 2036
Db   1900 ATCCGACTAAATGGGTACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACAACCCTG 1959

Qy   2037 GCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACAGGAC 2096
Db   1960 GCTGCTGATGTTATGAGACCTCGAAGAAGTGACCCTCCCTTAGCTGTTTTGACACAGGAC 2019

Qy   2097 AATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATTTCCT 2156
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Qy   2157 GTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACA 2216
Db   2080 GTTATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCTGACT 2139

Qy   2217 ATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGTGTGT 2276
Db   2140 ATTGCAATAGAAAGTGCCAGAAAAAAACAAGAAGGGATTGTTGGCAGTTCTCGGGTGTGT 2199

Qy   2277 TTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTCGAAGC 2336
Db   2200 TTTGCACAGCATACTCCATCTCTTCCAGCAGAAAGTCCACGGCCATTAAAACTGAGAAGC 2259

Qy   2337 ATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGTGGAT 2396
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Qy   2397 ATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCTTGGC 2456
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Qy   2457 ATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCCCGCT 2516
Db   2380 ATTATAACAAAAAAAGATATCCTCCGTCATATGGCCCAGACGGCAAACCAAGACCCCGCT 2439

Qy   2517 TCAATAATGTTCAACTGA 2534
Db   2440 TCAATAATGTTCAACTGA 2457
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LOCUS       XLCLC3                  2586 bp    mRNA    linear   VRT 22-DEC-1999
DEFINITION  Xenopus laevis mRNA for putative chloride channel ClC-3.
ACCESSION   Y09941
VERSION     Y09941.2  GI:6634695
KEYWORDS    chloride channel; ClC-3.
SOURCE      Xenopus laevis.
  ORGANISM  Xenopus laevis
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidea; Pipidae;
            Xenopodinae; Xenopus.
REFERENCE   1  (bases 1 to 2586)
  AUTHORS   Lindenthal,S.M.B.
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 2586)
  AUTHORS   Lindenthal,S.M.B.
  TITLE     Direct Submission
  JOURNAL   Submitted (04-DEC-1996) S.M.B. Lindenthal, Laboratoire Jean Maetz,
            Physiologie Des Membranes, La Darse - B.P. 68, 06230
            Villefranche-Sur-Mer, FRANCE
  REMARK    revised by [4]
REFERENCE   3  (bases 1 to 2586)
  AUTHORS   Lindenthal,S.M.B.
  TITLE     Direct Submission
  JOURNAL   Submitted (22-DEC-1999) S.M.B. Lindenthal, CNRS/ERS 1253,
            Laboratoire Jean Maetz, BP 68, La Darse 06238, Villefranche s/m
            Cedex, FRANCE
COMMENT     On Dec 23, 1999 this sequence version replaced gi:3184135.
FEATURES             Location/Qualifiers
     source          1..2586
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                     PQWQTWADLIIGQAEGPGSYIMNYFMYIFWALSFAFLAVCLVKVFAPYACGSGIPEIK
                     TILSGFIIRGYLGKWTLMIKTITLVLAVASGLSLGKEGPLVHVACCCGNIFSYLFPKY
                     STNEAKKREVLSAASAAGVSVAFGAPIGGVLFSLEEVSYYFPLKTLWRSFFAALVAAF
                     VLRSINPFGNSRLVLFYVEYHTPWYLFELIPFILLGVFGGLWGAFFIRANIAWCRRRK
                     STRFGRYPVLEVIAVAAITAIIAFPNPYTRFNTSQLIKELFTDCGPLESSSLCDYKND
                     MNASKIVDDIPDRPAGTGVYSAIWQLCLALVFKIIMTVFTFGIKVPSGLFIPSMAIGA
                     IAGRIVGIAVEQLAYYHHDWFIFKEWCEVGADCITPGLYAMVGAAACLGGVTRMTVSL
                     VVIVFELTGGLEYIVPLMAAVMTSKWVGDAFGREGIYEAHIRLNGYPFLDAKEEFTHT
                     TLARDVMRPRRNDPPLAVLTQDDMTVDDVESLINDTSYNGFPVIMSKESQRLVGFALR
                     RDLTLAIENARKKQDGIVGSSRVCFAQHTPSLPAESPRTLKLRSILDMSPFTVTDQTP
                     MEIVVDIFRKLGLRQCLVTHNGRLLGIITKKDILRHMAQMANHDPESILFN"
BASE COUNT      690 a    542 c    628 g    726 t
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ORIGIN

  Query Match             45.0%;  Score 1632.2;  DB 5;  Length 2586;
  Best Local Similarity   79.1%;  Pred. No. 3e-279;
  Matches 1953;  Conservative    0;  Mismatches  513;  Indels    3;  Gaps    1;

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Db       91 ATGGATATCTCTTCAGATCCCTACCTGCCTTATGATGGAGGTGGAGACAATATTCCTCTC 150

Qy      219 AGGGAATTACATAAAAGAGGAACTCATTATACAATGACAAATGGAGGCAGCATTAACAGT 278
Db      151 CGGGATCTGCATAAAAGAGGAACACATTATACTGTGACAAATGGAGGTGCAATTAACAGC 210

Qy      279 TCTACACATTTACTGGATCTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGAT 338
Db      211 ACGACTCACCTATTGGATCTCCTAGATGAACCTATCCCAGGAGTCGGGACCTATGATGAC 270

Qy      339 TTCCATACTATTGATTGGGTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATC 398
Db      271 TTTCATACCATAGACTGGGTGCGGGAAAAATGCAAAGACAGAGAGCGACACAGGCGGATA 330

Qy      399 AACAGCAAAAAGAAAGAATCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCA 458
Db      331 AACAGCAAGAAGAAAGAATCTGCATGGGAACTAGCAAAAAGTCTGTACGATGCCTGGTCT 390

Qy      459 GGATGGCTAGTAGTAACACTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGAC 518
Db      391 GGATGGCTGGTACTCACACTAACCGGTTTAGCATCAGGTGCCCTTGCAGGCTTTATAGAC 450

Qy      519 ATTGCTGCCGATTGGATGACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTAC 578
Db      451 ATTGCTGCAGACTGGATGGCAGATTTAAAAGAAGGTATTTGTATGACCGCATTCTGGTTT 510

Qy      579 AACCACGAACAGTGCTGTTGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGT 638
Db      511 AACCATGAACAGTGCTGCTGGGACTCCAAAGAAGCAACATTTGAAGAGAGAGACAAGTGC 570

Qy      639 CCACAGTGGAAAACATGGGCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTAT 698
Db      571 CCTCAGTGGCAGACATGGGCAGACCTAATAATTGGCCAAGCAGAAGGTCCTGGATCTTAT 630

Qy      699 ATCATGAACTACATAATGTACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCC 758
Db      631 ATAATGAATTATTTCATGTACATTTTTGGGCCCTAAGTTTTGCCTTTCTCGCTGTGTGT 690

Qy      759 CTGGTAAAGGTATTTGCTCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATT 818
Db      691 CTTGTGAAAGTATTTGCCCCTTATGCTTGTGGTTCAGGAATACCAGAGATTAAAACTATT 750

Qy      819 TTAAGTGGATTCATCATCAGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATC 878
Db      751 TTAAGCGGATTCATCATCCGTGGATACCTGGGAAAATGGACGTTAATGATAAAAACTATC 810

Qy      879 ACATTAGTCCTGGCTGTGGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACAT 938
Db      811 ACGCTGGTTCTTGCTGTGGCCTCAGGTTTAAGCTTAGGGAAGGAAGGTCCCTTAGTACAT 870

Qy      939 GTTGCCTGTTGCTGCGGAAATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAA 998
Db      871 GTTGCATGCTGTTGTGGCAACATATTTTCCTACCTGTTCCCCAAGTACAGCACTAATGAG 930

Qy      999 GCTAAAAAAAGGGAGGTGCTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGT 1058
Db      931 GCAAAGAAAAGAGAGGTTCTGTCAGCAGCATCAGCTGCTGGTGTTTCTGTTGCTTTTGGA 990

Qy     1059 GCACCAATTGGAGGAGTTCTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAA 1118
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Qy     1119 ACTTTATGGAGATCATTTTTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAAT 1178
Db     1051 ACATTATGGAGATCATTCTTTGCAGCCTTAGTAGCAGCATTTGTTCTAAGGTCAATTAAC 1110

Qy     1179 CCATTTGGTAACAGCCGTCTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTT 1238
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Qy     1239 TTTGAACTGTTTCCTTTTATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTC 1298
Db     1171 TTTGAACTTATCCCATTTATTCTACTGGGTGTATTTGGAGGACTTTGGGGAGCGTTTTTC 1230

Qy     1299 ATTAGGGCAAATATTGCCTGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCC 1358
Db     1231 ATCCGTGCGAATATTGCCTGGTGCCGGCGGCGCAAATCAACCAGATTTGGGAGGTATCCA 1290

Qy     1359 GTTCTGGAAGTCATTATTGTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATAC 1418
Db     1291 GTATTGGAGGTTATCGCCGTGGCAGCCATCACGGCGATTATTGCTTTTCCCAATCCGTAC 1350

Qy     1419 ACTAGGCTAAACACCAGTGAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAA 1478
Db     1351 ACACGGTTCAACACTAGCCAGTTGATAAAGGAGTTATTTACAGACTGTGGGCCTTTAGAA 1410

Qy     1479 TCCTCTTCTCTTTGTGACTACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATT 1538
Db     1411 TCCTCTTCTTTGTGTGACTATAAAAATGATATGAACGCCAGCAAAATTGTGGACGATATA 1470

Qy     1539 CCTGATCGTCCAGCAGGCATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTC 1598
Db     1471 CCTGACCGCCCTGCAGGGACTGGGGTGTACTCAGCTATTTGGCAGCTGTGCTTGGCTCTG 1530

Qy     1599 ATATTTAAAATCATAATGACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTC 1658
Db     1531 GTGTTCAAGATTATTATGACAGTCTTCACCTTTGGCATTAAGGTACCTTCAGGTCTGTTT 1590

Qy     1659 ATCCCCAGCATGGCCATTGGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAG 1718
Db     1591 ATCCCAAGCATGGCAATTGGTGCCATAGCAGGCCGGATTGTGGGCATTGCAGTGGAACAA 1650

Qy     1719 CTTGCCTACTATCACCACGACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGAT 1778
Db     1651 CTGGCTTATTATCATCATGACTGGTTCATATTCAAGGAGTGGTGTGAAGTGGGAGCTGAC 1710

Qy     1779 TGCATTACACCTGGCCTTTATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACA 1838
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Qy     1899 GTTCCCCTTATGGCTGCAGTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAA 1958
Db     1831 GTCCCCCTTATGGCAGCAGTGATGACCAGTAAGTGGGTTGGGGATGCCTTTGGAAGGGAA 1890

Qy     1959 GGCATTTATGAAGCACACATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAA 2018
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Qy     2019 TTCACTCATACCACCCTGGCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTA 2078
Db     1951 TTCACACATACAACTCTAGCTCGTGATGTGATGAGACCAAGAAGAAACGATCCTCCATTG 2010

Qy     2079 GCTGTCCTGACACAGGACAATATGACAGTGGATGATATAGAAAACATGATTAATGAAACC 2138
Db     2011 GCTGTTCTAACTCAAGACGATATGACTGTTGATGATGTTGAAAGTCTAATCAATGACACC 2070

Qy     2139 AGCTACAATGGATTTCCTGTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCC 2198
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Qy     2199 CTCAGAAGAGACCTGACAATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTT 2258
Db     2131 CTCAGAAGAGATTTGACATTAGCCATTGAAAATGCAAGAAAAAAGCAAGATGGTATTGTT 2190
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Qy    2259 GGCAGTTCTCGGGTGTGTTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGG 2318
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Qy    2319 CCATTGAAGCTTCGAAGCATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCA 2378
Db    2251 ACTCTTAAGCTACGCAGTATCCTTGACATGAGTCCTTTCACCGTGACTGACCAGACACCA 2310

Qy    2379 ATGGAGATTGTGGTGGATATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCAC 2438
Db    2311 ATGGAAATAGTGGTGGACATATTCCGTAAACTGGGGCTCAGACAGTGCCTTGTGACACAC 2370

Qy    2439 AATGGGCGCCTCCTTGGCATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACG 2498
Db    2371 AATGGGCGCCTCCTTGGTATTATCACAAAAAAAGATATCCTTCGTCATATGGCCCAAATG 2430

Qy    2499 GCAAACCAAGACCCCGCTTCAATAATGTTCAACTG---AATCTCACAGATGAGGAGAGAG 2555
Db    2431 GCAAATCACGATCCCGAGTCGATCTTGTTCAACTGAACAACATCTCCGAGGAAGACAGGG 2490

Qy    2556 AAGAAACGGAAGAGGAAGTTTATTTGTTGAATAGCACAACTCTTTAACCTGAGGGAGTCA 2615
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Qy    2616 TCTACTTTT 2624
Db    2551 TGGATTGTT 2559
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LOCUS       AF182215                 4538 bp    mRNA    linear   VRT 26-SEP-1999
DEFINITION  Tilapia mossambica chloride channel CLC-3 mRNA, complete cds.
ACCESSION   AF182215
VERSION     AF182215.1  GI:5923860
KEYWORDS    .
SOURCE      Oreochromis mossambicus.
  ORGANISM  Oreochromis mossambicus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
            Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes;
            Labroidei; Cichlidae; Oreochromis.
REFERENCE   1  (bases 1 to 4538)
  AUTHORS   Miyazaki,H., Uchida,S., Takei,Y., Hirano,T., Marumo,F. and
            Sasaki,S.
  TITLE     Molecular cloning of CLC chloride channels in Oreochromis
            mossambicus and their functional complementation of yeast CLC gene
            mutant
  JOURNAL   Biochem. Biophys. Res. Commun. 255 (1), 175-181 (1999)
  MEDLINE   99185316
   PUBMED   10082675
REFERENCE   2  (bases 1 to 4538)
  AUTHORS   Miyazaki,H.
  TITLE     Direct Submission
  JOURNAL   Submitted (01-SEP-1999) Tokyo Medical and Dental University, 2nd
            Department of Internal Medicine, 1-5-45 Yushima, Bunkyo-ku, Tokyo
            113-8519, Japan
FEATURES             Location/Qualifiers
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BASE COUNT     1068 a   1145 c   1174 g   1150 t      1 others
ORIGIN

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  Best Local Similarity  73.6%;  Pred. No. 6.5e-223;
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Db      57 AGGATCTAACTACGCCATGTCAAACGGGGGCGGGGCTCCCAGCAGCTCCACCCACCTGCT 116

Qy     293 GGATCTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTGA 352
Db     117 GGACTTCCTAGAGGAGCCCATCCCTGGTGTTGGGACCTACGATGACTTTCACACCATCGA 176

Qy     353 TTGGGTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGAA 412
Db     177 CTGGGTCCGTGAGAAGTGCAAGGACCGCGAGAGACACCGGAAGATCAATAGTAAGAAAAA 236

Qy     413 AGAATCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGT 472
Db     237 GGAGTCGGCATGGGAGTTCACCAAGAACCTGTACGACGCTTGGTCCGGCTGGCTGGTGGT 296

Qy     473 AACACTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATTG 532
Db     297 GACGCTCACTGGCTTGGCATCAGGTGCTTTGGCTGGCCTGATTGACATTGCTGCTGATTG 356

Qy     533 GATGACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGTG 592
Db     357 GATGAACGACCTGAAGGAGGGCGTGTGTCTGAGCGCCTTGTGGTTCAACCACGAGCAGTG 416

Qy     593 CTGTTGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAAC 652
Db     417 CTGCTGGACGTCCAATGAGACCACCTTCGCTGAGAGGGACAAGTGTCCTCAATGGAAGAG 476

Qy     653 ATGGGCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACAT 712
Db     477 CTGGGCTGAGCTAATACTGGGGCAGGCTGAGGGCCCCGGCTCGTACATCATGAACTATTT 536

Qy     713 AATGTACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATT 772
Db     537 CATGTACATCTACTGGGCTCTGTCCTTCGCCTTCCTGGCAGTTTGTCTGGTTAAGGTGTT 596

Qy     773 TGCTCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTTAAGTGGATTCAT 832
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Qy     833 CATCAGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGGC 892
Db     657 CATCCGGGGCTATCTGGGCAAGTGGACCTTGATGATCAAAACCATCACTCTGGTGCTGGC 716

Qy     893 TGTGGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTG 952
Db     717 TGTGGCGTCGGGCCTGAGCCTGGGGAAAGAGGGCCCCCTGGTCCACGTGGCCTGCTGCTG 776

Qy     953 CGGAAATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGA 1012
Db     777 TGGGAACATCTTCTCCTACCTCTTCCCCAAGTACAGCAAGAACGAGGCCAAGAAACGAGA 836

Qy    1013 GGTGCTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGG 1072
Db     837 GGTTCTCTCTGCCGCGTCAGCTGCCGGGGTGTCTGTAGCTTTTGGAGCACCAATCGGGGG 896

Qy    1073 AGTTCTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGATC 1132
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Qy   1193 CCGTCTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTCC 1252
Db   1017 CCGCCTGGTGCTGTTCTACGTGGAGTACCACACGCCATGGTACCTTTTTGAGCTCATCCC 1076

Qy   1253 TTTTATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATAT 1312
Db   1077 GTTCATTCTGCTCGGAGTGTTCGGGGGCCTCTGGGGCGCCTTCTTCATCAAAGCCAACAT 1136

Qy   1313 TGCCTGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCAT 1372
Db   1137 CGCCTGGTGCCGGCGGCGCAAGTCGACACGTTTCGGCAGGTACCCGGTGTTGGAGGTGAT 1196

Qy   1373 TATTGTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACAC 1432
Db   1197 CCTGGTGGCAGCCATCACTGCGGTGGTTGCTTTCCCAAACCCTTACACGCGCAAGAACAC 1256

Qy   1433 CAGTGAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTTG 1492
Db   1257 CAGCGAGCTGATAAAGGAGCTGTTCACCGACTGCGGTCCGCTGGAGTCTTCGCAGCTTTG 1316

Qy   1493 TGACTACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAGC 1552
Db   1317 TCAGTACCGCAGCCAGATGAACGGCACCAAAGCCTTCTCTGA------TGACCAGCCGGC 1370

Qy   1553 AGGCATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCAT 1612
Db   1371 GGGGCCCGGCGTCTACTCGGCCATGTGGCAGCTGTGCCTGGCGCTCATCTTTAAAATCAT 1430

Qy   1613 AATGACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGGC 1672
Db   1431 CATGACTATATTCACATTTGGACTCAAGGTACCGTCCGGGTTGTTCATCCCCAGCATGGC 1490

Qy   1673 CATTGGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATCA 1732
Db   1491 CATTGGGGCGATCGCGGGGCGGATTGTCGGCATCGCCATGGAGCAGCTCGCATATTATCA 1550

Qy   1733 CCACGACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTGG 1792
Db   1551 CCACGACTGGTTCCTGTTCAAGGAGTGGTGCGAGGTGGGAGCTGACTGCATCACTCCAGG 1610

Qy   1793 CCTTTATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCTC 1852
Db   1611 GCTCTATGCTATGGTGGGAGCTGCAGCGTGCCTGGGTGGAGTGACTCGTATGACCGTCTC 1670

Qy   1853 CCTGGTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGGC 1912
Db   1671 CCTCGTCATCATCGTGTTCGAGCTGACCGGCGGGCTGGAGTACATCGTCCCCCTCATGGC 1730

Qy   1913 TGCAGTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAGC 1972
Db   1731 CGCCGTGATGACCAGCAAATGGGTGGGCGACGCATTTGGCCGAGAGGGAATCTACGAGGC 1790

Qy   1973 ACACATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCAC 2032
Db   1791 CCACATCCGCCTGAACGGATACCCCTTCCTGGATTCAAAGGAGGAGTTCACGCACACCAC 1850

Qy   2033 CCTGGCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACACA 2092
Db   1851 GCTGGCCCGGGAGGTGATGAGGCCCCGACGCAACGACCCGCCGTTGGCAGTGCTCACGCA 1910

Qy   2093 GGACAATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGATT 2152
Db   1911 GGACGACCTGACTGTGGAGGAGCTGCAGGGCATTATCAATGAAACCAGTTATAATGGTTT 1970

Qy   2153 TCCTGTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACCT 2212
Db   1971 CCCTGTGATCGTGTCTAAGGAGTCCCAGAGGCTGGTGGGCTTCGCTCTGCGCAGAGACAT 2030

Qy   2213 GACAATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGGT 2272
Db   2031 CACAATCGCTATAGAGAACGCTCGCCGCAAGCAGGAGGGCATTGTGCTGAACTCCAGGGT 2090

Qy   2273 GTGTTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTCG 2332
Db   2091 GTACTTCACCCAGCATGCACCCACGCTGCCCGCCGACAGCCCTCGACCCCTCAAGCTTCG 2150

Qy   2333 AAGCATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGGT 2392
Db   2151 CTCCATCCTGGACATGAGCCCCTTCACCGTCACTGACCACACCCCCATGGAGATCGTGGT 2210

Qy   2393 GGATATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCCT 2452
Db   2211 AGACATCTTCAGGAAGCTGGGTCTGCGCCAGTGCCTGGTTACTCACAACGGGCGGCTTCT 2270

Qy   2453 TGGCATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACCC 2512
Db   2271 TGGTATTATCACAAAAAAAGATATCCTTCGTCACATGGCTCAAATGGCAAATCAGGATCC 2330

Qy   2513 CGCTTCAATAATGTTCAACTGAATCTCACAGATGAGGA 2550
Db   2331 AGAGTCCATCATGTTCAACTGATCCGCTCTTTCCAGGA 2368

RESULT 13
RNCHCHANP
LOCUS       RNCHCHANP               2244 bp    mRNA    linear   ROD 29-FEB-1996
DEFINITION  R.norvegicus mRNA for putative chloride channel.
ACCESSION   Z36944
VERSION     Z36944.1  GI:535931
KEYWORDS    chloride channel.
SOURCE      Rattus norvegicus.
  ORGANISM  Rattus norvegicus
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
            Rattus.
REFERENCE   1  (bases 1 to 2244)
  AUTHORS   Jentsch,T.J., Guenther,W., Pusch,M. and Schwappach,B.
  TITLE     Properties of voltage-gated chloride channels of the CLC gene
            family
  JOURNAL   J. Physiol. 482, 19-25 (1995)
REFERENCE   2  (bases 1 to 2244)
  AUTHORS   Schwappach,B.
  TITLE     Direct Submission
  JOURNAL   Submitted (03-SEP-1994) Blanche Schwappach, Zentrum fuer Molekulare
            Neurobiologie, Martinistr. 52, Hamburg, 20246, Germany
FEATURES             Location/Qualifiers
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                     CCCGNFFSSLFSKYSKNEGKRREVLSAAAAAGVSVAFGAPIGGVLFSLEEVSYYFPLK
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                     GALESSQLCDYINDPNMTRPVDDIPDRPAGVGVYTAMWQLALALIFKIVITIFTFGMK
                     IPSGLFIPSMAVGAMAGRMVGIGVEQLAYHHHDWIIFRNWCRPGADCVTPGLYAMVGA
                     AACLGGVTRMTVSLVVIMFELTGGLEYIVPLMAAAVTSKWVADAFGKEGIYEAHIHLN
                     GYPFLDVKDEFTHRTLATDVMRPRRGEPPLSVLTQDSMTVEDVETLIKETDYNGFPVV
                     VSRDSERLIGFAQRRELILAIKNARQRQEGIVSNSIMYFTEEPPELPANSPHPLKLRR
                     ILNLSPFTVTDHTPMETVVDIFRKLGLRQCLVTRSGRLLGIITKKDVLRHMAQMANQD
                     PESIFN"
BASE COUNT      506 a    534 c    617 g    587 t
ORIGIN
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Query Match             33.2%;  Score 1202.6;  DB 10;  Length 2244;
Best Local Similarity   71.0%;  Pred. No. 3.2e-203;
Matches 1592;  Conservative    0;  Mismatches  649;  Indels    0;  Gaps    0;

Qy        292 TGGATCTTTTGGATGAACCAATTCCAGGTGTTGGTACATATGATGATTTCCATACTATTG 351
Db          2 TGGACTTCCTTGATGAGCCCTTCCCTGATGTGGGGACCTATGAAGACTTCCACACCATAG 61

Qy        352 ATTGGGTGCGAGAAAAATGTAAAGACAGAGAAAGGCATAGACGGATCAACAGCAAAAAGA 411
Db         62 ACTGGCTGAGGGAAAAGTCCCGGGACACTGACAGACATAGAAAGATAACCAGCAAAAGTA 121

Qy        412 AAGAATCAGCATGGGAAATGACAAAAAGTTTGTATGATGCGTGGTCAGGATGGCTAGTAG 471
Db        122 AAGAGTCTATTTGGGAGTTCATCAAGAGTCTGCTGGACGCATGGTCAGGATGGGTGGTGA 181

Qy        472 TAACACTAACAGGATTGGCATCAGGGGCACTGGCCGGATTAATAGACATTGCTGCCGATT 531
Db        182 TGCTACTTATTGGTCTGCTAGCAGGTACCCTGGCTGGAGTTATCGATCTCGCTGTTGACT 241

Qy        532 GGATGACTGACCTAAAGGAGGGCATTTGCCTTAGTGCGTTGTGGTACAACCACGAACAGT 591
Db        242 GGATGACAGACCTCAAGGAGGGCGTCTGTCTGTCTGCATTCTGGTACAGCCATGAGCAAT 301

Qy        592 GCTGTTGGGGATCTAATGAAACAACATTTGAAGAGAGGGATAAATGTCCACAGTGGAAAA 651
Db        302 GCTGCTGGACCTCCAATGAGACCACTTTTGAGGACAGGGACAAGTGTCCCCTGTGGCAGA 361

Qy        652 CATGGGCAGAATTAATCATAGGTCAAGCAGAGGGTCCTGGTTCTTATATCATGAACTACA 711
Db        362 AGTGGTCAGAGCTTCTTCTGAGCCAGTCAGAGGGTGCTAGCGCTTACATTCTGAATTACT 421

Qy        712 TAATGTACATCTTCTGGGCCTTGAGTTTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTAT 771
Db        422 TAATGTACATTCTATGGGCATTGCTGTTTGCATTTCTGGCTGTCTCCCTGGTACGTGTGT 481

Qy        772 TTGCTCCATATGCCTGTGGCTCTGGAATTCCAGAGATTAAAACTATTTAAGTGGATTCA 831
Db        482 TTGCACCATATGCCTGTGGCTCTGGCATACCTGAGATAAAGACTATTTTGAGTGGCTTTA 541

Qy        832 TCATCAGAGGTTACTTGGGAAAATGGACTTTAATGATTAAAACCATCACATTAGTCCTGG 891
Db        542 TCATCAGGGGCTACTTGGGGAAATGGACTCTTCTAATCAAGACTGTCACTCTCGTGCTGG 601

Qy        892 CTGTGGCATCAGGTTTGAGTTTAGGAAAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCT 951
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Qy        952 GCGGAAATATCTTTTCCTACCTCTTTCCAAAGTATAGCACAAACGAAGCTAAAAAAAGGG 1011
Db        662 GTGGCAACTTCTTTAGCAGCCTTTTCTCCAAGTATAGCAAGAATGAAGGCAAGAGGCGTG 721

Qy       1012 AGGTGCTATCAGCTGCCTCAGCTGCAGGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAG 1071
Db        722 AGGTGCTTTCCGCTGCAGCTGCTGCTGGTGTCTCTGTGGCCTTTGGTGCTCCCATAGGAG 781

Qy       1072 GAGTTCTTTTTAGCCTGGAAGAGGTTAGCTATTATTTTCCTCTCAAAACTTTATGGAGAT 1131
Db        782 GTGTACTCTTCAGTCTAGAGGAGGTCAGTTACTACTTTCCCTTGAAAACCTTGTGGAGGT 841

Qy       1132 CATTTTTTGCTGCTTTAGTGGCTGCATTTGTTTTGAGGTCCATCAATCCATTTGGTAACA 1191
Db        842 CATTTTTTGCAGCCCTGGTGGCTGCCTTCACACTGCGCTCCATCAACCCCTTTGGAAATA 901

Qy       1192 GCCGTCTGGTCCTTTTTTATGTGGAGTATCATACACCATGGTACCTTTTTGAACTGTTTC 1251
Db        902 GCCGCCTGGTTCTCTTTTATGTGGAGTATCATACACCTTGGTACATGGCTGAACTCTTCC 961

Qy       1252 CTTTTATTCTTCTAGGGGTATTTGGAGGGCTTTGGGGAGCCTTTTTCATTAGGGCAAATA 1311
Db        962 CTTTCATCCTGCTTGGAGTCTTTGGGGGTTTGTGGGGAACCGTCTTCACACGCTGCAACA 1021

Qy       1312 TTGCCTGGTGTCGTCGACGCAAGTCCACGAAATTTGGAAAGTATCCCGTTCTGGAAGTCA 1371
Db       1022 TTGCCTGGTGCAGGAGGCGTAAAACCACCAGGCTGGGGAAGTATCCAGTGTTGGAGGTCA 1081

Qy       1372 TTATTGTTGCAGCCATTACTGCTGTGATAGCCTTCCCTAATCCATACACTAGGCTAAACA 1431
Db       1082 TTGTGGTGACAGCCATCACTGCCATCATTGCTTATCCCAATCCCTACACTCGCCAGAGCA 1141

Qy       1432 CCAGTGAACTGATCAAAGAGCTTTTTACAGACTGTGGTCCCCTGGAATCCTCTTCTCTTT 1491
Db       1142 CCAGTGAGCTCATATCTGAGCTATTCAATGATTGTGGGGCTCTTGAGTCTTCTCAGCTCT 1201

Qy       1492 GTGACTACAGAAATGACATGAATGCCAGTAAAATTGTCGATGACATTCCTGATCGTCCAG 1551
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Qy       1552 CAGGCATTGGAGTATATTCAGCTATATGGCAGTTATGCCTGGCACTCATATTTAAAATCA 1611
Db       1262 CTGGGGTTGGAGTTTACACAGCCATGTGGCAGCTGGCCTTGGCACTGATCTTCAAAATAG 1321

Qy       1612 TAATGACAGTATTCACTTTTGGCATCAAGGTTCCATCAGGCTTGTTCATCCCCAGCATGG 1671
Db       1322 TCATTACTATATTTACCTTTGGCATGAAGATTCCCTCAGGTCTCTTCATCCCCAGTATGG 1381

Qy       1672 CCATTGGAGCGATCGCAGGAAGGATTGTGGGGATTGCGGTGGAGCAGCTTGCCTACTATC 1731
Db       1382 CTGTAGGAGCCATGGCAGGCCGGATGGTGGGAATTGGTGTGGAGCAGCTGGCCTACCATC 1441

Qy       1732 ACCACGACTGGTTTATCTTTAAGGAGTGGTGTGAGGTCGGGGCTGATTGCATTACACCTG 1791
Db       1442 ATCATGACTGGATCATCTTCAGGAACTGGTGCAGGCCTGGAGCGGACTGTGTCACACCAG 1501

Qy       1792 GCCTTTATGCCATGGTTGGTGCTGCTGCATGCTTAGGTGGTGTGACAAGAATGACTGTCT 1851
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Qy       1852 CCCTGGTGGTTATTGTTTTTGAGCTTACTGGAGGCTTGGAATATATTGTTCCCCTTATGG 1911
Db       1562 CTCTGGTAGTCATCATGTTTGAACTGACTGGAGGTCTGGAATATATTGTACCCCTGATGG 1621

Qy       1912 CTGCAGTCATGACCAGTAAATGGGTTGGAGATGCCTTTGGCAGGGAAGGCATTTATGAAG 1971
Db       1622 CAGCGGCTGTTACCAGCAAGTGGGTGGCTGATGCCTTTGGGAAAGAAGGGATTTATGAAG 1681

Qy       1972 CACACATCCGATTAAATGGATACCCTTTCTTGGATGCAAAAGAAGAATTCACTCATACCA 2031
Db       1682 CCCACATCCATCTGAATGGGTACCCATTTCTTGATGTGAAGGATGAGTTCACTCACCGTA 1741

Qy       2032 CCCTGGCTGCTGACGTTATGAGACCTCGAAGGAATGATCCTCCCTTAGCTGTCCTGACAC 2091
Db       1742 CCCTAGCCACTGATGTGATGCGGCCCCGCAGGGGAGAACCACCTTTGTCAGTACTAACCC 1801

Qy       2092 AGGACAATATGACAGTGGATGATATAGAAAACATGATTAATGAAACCAGCTACAATGGAT 2151
Db       1802 AGGACAGCATGACTGTGGAGGATGTGGAGACTCTCATAAAAGAGACAGACTACAATGGGT 1861

Qy       2152 TTCCTGTCATAATGTCAAAAGAATCTCAGAGATTAGTGGGATTTGCCCTCAGAAGAGACC 2211
Db       1862 TTCCTGTGGTGGTCTCGAGAGATTCGGAGCGCCTCATAGGCTTTGCCCAGAGGCGGGAGC 1921

Qy       2212 TGACAATTGCAATAGAAAGTGCCAGGAAAAAACAAGAAGGTATCGTTGGCAGTTCTCGGG 2271
Db       1922 TAATCTTGGCTATAAAAAATGCCAGACAGAGGCAAGAGGGCATCGTGAGCAATTCCATCA 1981

Qy       2272 TGTGTTTTGCACAGCACACCCCATCTCTTCCAGCAGAAAGTCCTCGGCCATTGAAGCTTC 2331
Db       1982 TGTACTTCACAGAGGAGCCCCCTGAGCTGCCTGCCAACAGCCCACATCCACTGAAGCTGA 2041

Qy       2332 GAAGCATTCTTGACATGAGCCCTTTTACAGTGACAGACCACACCCCAATGGAGATTGTGG 2391
Db       2042 GGCGCATTCTGAACCTGAGCCCTTTTACTGTCACAGACCACACCCCCATGGAGACAGTGG 2101

Qy       2392 TGGATATTTTCCGAAAGCTGGGACTGAGGCAGTGCCTTGTAACTCACAATGGGCGCCTCC 2451
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Db    2102 TGGACATTTTCCGGAAACTGGGGCTCCGACAATGCCTGGTGACACGGAGTGGGAGGCTTC 2161

Qy    2452 TTGGCATTATAACAAAAAAAGATATCCTCCGGCATATGGCCCAGACGGCAAACCAAGACC 2511
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Db    2162 TTGGGATCATCACAAAAAAAGACGTTCTGAGACACATGGCGCAGATGGCAAACCAGGACC 2221

Qy    2512 CCGCTTCAATAATGTTCAACT 2532
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Db    2222 CTGAATCCATCATTTTTAATT 2242


RESULT 14
HSCLCN5GN
LOCUS       HSCLCN5GN               3173 bp    mRNA    linear   PRI 07-MAY-1996
DEFINITION  H.sapiens voltage-gated chloride ion channel CLCN5.
ACCESSION   X91906
VERSION     X91906.1  GI:1067131
KEYWORDS    CLCN5 gene; voltage-gated chloride channel.
SOURCE      Homo sapiens.
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 3173)
  AUTHORS   Fisher,S.E., van Bakel,I., Lloyd,S.E., Pearce,S.H., Thakker,R.V.
            and Craig,I.W.
  TITLE     Cloning and characterization of CLCN5, the human kidney chloride
            channel gene implicated in Dent disease (an X-linked hereditary
            nephrolithiasis)
  JOURNAL   Genomics 29 (3), 598-606 (1995)
  MEDLINE   96121370
   PUBMED   8575751
REFERENCE   2  (bases 1 to 3173)
  AUTHORS   Craig,I.W.
  TITLE     Direct Submission
  JOURNAL   Submitted (30-AUG-1995) I.W. Craig, University of Oxford, Genetics
            Laboratory, Dept.of Biochemistry, South Parks Road, Oxford OX1 3QU,
            UK
REFERENCE   3  (bases 1 to 3173)
  AUTHORS   Lloyd,S.E., Pearce,S.H.S., Fisher,S.E., Steinmeyer,K.,
            Schwappach,B., Scheinman,S.J., Harding,B., Bolino,A., Devoto,M.,
            Goodyer,P., Rigden,S.P.A., Wrong,O., Jentsch,T.J., Craig,I.W. and
            Thakker,R.V.
  TITLE     A common molecular basis for three inherited kidney stone diseases
  JOURNAL   Nature 379 (6564), 445-449 (1996)
  MEDLINE   96158876
   PUBMED   8559248
COMMENT     Related sequences X81836 and Z56277.
FEATURES             Location/Qualifiers
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                     /clone="RL.3, RL.6, RL.7, RL.8"
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BASE COUNT      811 a    682 c    732 g    948 t
ORIGIN

  Query Match             32.8%;  Score 1188.6;  DB 9;  Length 3173;
  Best Local Similarity   70.5%;  Pred. No. 9e-201;
  Matches 1603;  Conservative    0;  Mismatches  669;  Indels    3;  Gaps    1;

Qy     258 AATGGAGGCAGCATTAACAGTTCTACACATTTACTGGATCTTTTGGATGAACCAATTCCA 317
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Db     259 AATGGTGGAGGAATAGGTTCTTCAAATAGGATCATGGACTTCTTGGAGGAGCCAATCCCT 318

Qy     318 GGTGTTGGTACATATGATGATTTCATACTATTGATTGGGTGCGAGAAAAATGTAAAGAC 377
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Db     319 GGTGTAGGGACCTATGATGATTTCAATACAATTGATTGGGTGAGAGAGAAGTCTCGAGAC 378

Qy     378 AGAGAAAGGCATAGACGGATCAACAGCAAAAAGAAAGAATCAGCATGGAAATGACAAAA 437
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Db     379 CGGGATAGGCACCGAGAGATTACCAATAAAAGCAAAGAGTCAACATGGGCCTTAATTCAC 438

Qy     438 AGTTTGTATGATGCGTGGTCAGGATGGCTAGTAGTAACACTAACAGGATTGGCATCAGGG 497
           ||| ||  |||||| |  || || ||| |   |    |  ||  |  ||  |   ||||||
Db     439 AGTGTGAGTGATGCTTTTTCCGGCTGGTTGTTGATGCTCCTTATTGGGCTTTTATCAGGT 498

Qy     498 GCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATGACTGACCTAAAGGAGGGCATT 557
            |   | || || || ||||||||  ||||  ||||||||| ||| |||| || || ||
Db     499 TCGTTAGCTGGTTTGATAGACATCTCTGCTCATTGGATGACAGACTTAAAAGAAGGTATA 558

Qy     558 TGCCTTAGTGCGTTGTGGTACAACCACGAACAGTGCTGTTGGGGATCTAATGAAACAACA 617
           |||     | |  || ||||  ||||| ||||| || || |||    ||| |   |     ||
Db     559 TGCACAGGGGGATTCTGGTTTAACCATGAACATTGTTGCTGGAACTCTGAGCATGTCACC 618

Qy     618 TTTGAAGAGAGGGATAAATGTCCACAGTGGAAAACATGGGCAGAATTAATCATAGGTCAA 677
           |||||||||| || ||||||||| ||||||| |  ||| |   |  | |||||  |    |
Db     619 TTTGAAGAGAGAGACAAATGTCCAGAGTGGAATAGTTGGTCCCAGCTTATCATCAGCACA 678

Qy     678 GCAGAGGGTCCTGGTTCTTATATCATGAACTACATAATGTACATCTTCTGGGCCTTGAGT 737
           |  |||||  |    | |  | || |  ||  |  | |||||| || |||||||  |
Db     679 GATGAGGGAGCCTTTGCCTACATAGTCAATTATTTCATGTACGTCCTCTGGGCTCTCCTA 738

Qy     738 TTTGCCTTTCTTGCAGTTTCCCTGGTAAAGGTATTTGCTCCATATGCCTGTGGCTCTGGA 797
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Db     739 TTTGCCTTCCTTGCCGTATCTCTTGTCAAGGTGTTTGCGCCTTATGCCTGTGGCTCTGGA 798

Qy     798 ATTCCAGAGATTAAAACTATTTTAAGTGGATTCATCATCAGAGGTTACTTGGGAAAATGG 857
           || || ||||| |||||||| || ||||| ||||| || || || || ||||| || |||
Db     799 ATCCCTGAGATAAAAACTATCTTGAGTGGTTTCATTATTAGGGGCTATTTGGGTAAGTGG 858

Qy     858 ACTTTAATGATTAAAACCATCACATTAGTCCTGGCTGTGGCATCAGGTTTGAGTTTAGGA 917
           ||| |   | || ||||||||||| || || ||||| ||| | || || |||||  | ||
Db     859 ACTCTGGTTATCAAAACCATCACCTTGGTGCTGGCAGTGTCGTCTGGCTTGAGCCTGGGC 918

Qy     918 AAAGAAGGTCCCCTGGTACATGTTGCCTGTTGCTGCGGAAATATCTTTTCCTACCTCTTT 977
           ||||| || || || || || || || || || || ||||| || || || | | || |||
Db     919 AAAGAGGGCCCCTCTAGTGCACGTGGCTTGCTGCTGTGGGAACATCCTGTGCCACTGCTTC 978

Qy     978 CCAAAGTATAGCACAAACGAAGCTAAAAAAAGGGAGGTGCTATCAGCTGCCTCAGCTGCA 1037
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Db     979 AACAAATACAGGAAGAATGAAGCCAAGCGCAGAGAGGTCTTGTCGGCTGCAGCAGCAGCT 1038

Qy    1038 GGGGTTTCTGTAGCTTTTGGTGCACCAATTGGAGGAGTTCTTTTTAGCCTGGAAGAGGTT 1097
           || || |||||||| ||||| ||||| || || |||||   | || ||||| ||||||||
Db    1039 GGTGTATCTGTAGCCTTTGGAGCACCTATAGGTGGAGTATTATTCAGCCTTGAAGAGGTC 1098

Qy    1098 AGCTATTATTTTCCTCTCAAAACTTTATGGAGATCATTTTTTGCTGCTTTAGTGGCTGCA 1157
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RESULT 15
AK056560

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DEFINITION  Homo sapiens cDNA FLJ31998 fis, clone NT2RP7009322, highly similar
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ACCESSION   AK056560
VERSION     AK056560.1  GI:16551996
KEYWORDS    oligo capping; fis (full insert sequence).
SOURCE      Homo sapiens teratocarcinoma cell_line:NT2 cDNA to mRNA,
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REFERENCE   1
  AUTHORS   Ninomiya,K., Wagatsuma,M., Kanda,K., Kondo,H., Yokoi,T.,
            Kodaira,H., Furuya,T., Takahashi,M., Kikkawa,E., Omura,Y., Abe,K.,
            Kamihara,K., Katsuta,N., Sato,K., Tanikawa,M., Yamazaki,M.,
            Sugiyama,T., Irie,R., Otsuki,T., Sato,H., Wakamatsu,A., Ishii,S.,
            Yamamoto,J., Isono,Y., Kawai-Hio,Y., Saito,K., Nishikawa,T.,
            Kimura,K., Yamashita,H., Matsuo,K., Nakamura,Y., Sekine,M.,
            Kikuchi,H., Murakawa,K., Kanehori,K., Takahashi-Fujii,A.,
            Oshima,A., Sugiyama,A., Kawakami,B., Suzuki,Y., Sugano,S.,
            Nagahari,K., Masuho,Y., Nagai,K. and Isogai,T.
  TITLE     NEDO human cDNA sequencing project
  JOURNAL   Unpublished
REFERENCE   2  (bases 1 to 3046)
  AUTHORS   Isogai,T., Otsuki,T. and Sugiyama,T.
  TITLE     Direct Submission
  JOURNAL   Submitted (24-OCT-2001) Takao Isogai, Helix Research Institute,
            Genomics Laboratory; 1532-3 Yana, Kisarazu, Chiba 292-0812, Japan
            (E-mail:genomics@hri.co.jp, Tel:81-438-52-3975, Fax:81-438-52-3986)
COMMENT     NEDO human cDNA sequencing project supported by Ministry of
            Economy, Trade and Industry of Japan; cDNA full insert sequencing:
            Research Association for Biotechnology (RAB); cDNA library
            construction: Helix Research Institute (HRI) (supported by Japan
            Key Technology Center etc.); 5'- & 3'-end one pass sequencing: RAB,
            HRI, and Biotechnology Center, National Institute of Technology and
            Evaluation; clone selection for full insert sequencing: RAB and
            HRI.
FEATURES             Location/Qualifiers
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                     /clone_lib="NT2RP7"
                     /note="cloning vector: pME18SFL3-mRNA from NT2 neuronal
                     precursor cells after 5-weeks retinoic acid (RA)
                     induction."
BASE COUNT      747 a    689 c    781 g    829 t
ORIGIN
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Best Local Similarity  70.4%;  Pred. No. 1.7e-200;
Matches 1602;  Conservative    0;  Mismatches  670;  Indels    3;  Gaps    1;

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Db    510 AATGGTGGAGGAATAGGTTCTTCAAATAGGATCATGGACTTCTTGGAGGAGCCAATCCCT 569

Qy    318 GGTGTTGGTACATATGATGATTTCCATACTATTGATTGGGTGCGAGAAAAATGTAAAGAC 377
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Qy    498 GCACTGGCCGGATTAATAGACATTGCTGCCGATTGGATGACTGACCTAAAGGAGGGCATT 557
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Db    990 TTTGCCTTCCTTGCCGTATCTCTTGTCAAGGTGTTTGCGCCTTATGCCTGTGGCTCTGGA 1049

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